

REMARKS

Claims 1, 3-8 and 11-14 are pending in this application. By this Amendment, claim 1 is amended. The amendments introduce no new matter because they are supported by the claims as originally filed. Claims 2 and 9 are canceled without prejudice to, or disclaimer of, the subject matter recited in those claims. A Request for Continued Examination is attached. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

The Office Action, on page 2, rejects claims 1, 3 and 4 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,632,157 to Sekino et al. (hereinafter "Sekino"). This rejection is respectfully traversed.

Sekino teaches a refrigerating system which includes providing a refrigerant to separate wheel driving motors to be cooled directly by the refrigerating system (Abstract).

Independent claim 1 is amended with the inclusion of the subject matter of now-canceled claim 2. Because claim 2 was not rejected over Sekino, claim 1, as amended, is not anticipated, nor would it even have been suggested, by Sekino. Further, claims 3 and 4 are also neither taught, or would they have been suggested, by Sekino for at least the respective dependence of these claims on independent claim 1, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 3 and 4 under 35 U.S.C. §102(b) as being anticipated by Sekino are respectfully requested.

The Office Action, in paragraph 3, rejects claims 1-7 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,515,384 to Kikuchi et al. (hereinafter "Kikuchi"); and on page 5, rejects claims 8, 9 and 11-14 under 35 U.S.C. §103(a) as being unpatentable over Kikuchi in view of U.S. Patent Application Publication No. U.S. 2002/0145353 to Kimura et al. (hereinafter "Kimura"). These rejections are respectfully traversed.

Applicants renew the following arguments in support of the patentability of the pending claims.

Kikuchi is the U.S. equivalent of JP-A-2001-145302 that is discussed at page 1, line 15 - page 2, line 17, under Background Art of this application. Kikuchi teaches a motor/generator with equalized coolant distribution in which a stator is provided with a plurality of slots opening toward an outer periphery of the rotor with cooling liquid chambers formed at either end such that the cooling liquid can be made to flow through the slots (Abstract). Kikuchi, however, suffers shortfalls enumerated in the above-identified passages of this application. Specifically, because the cooling liquid flows from the upper portion to the lower portion of the motor, in order to distribute the cooling liquid to all parts of the stator coil, it is necessary to provide straightening vanes in the cooling passages which results in a complicated structure (see, *e.g.*, the discussion of upper partitions 21a and lower partitions 21b at col. 3, lines 28-65 of Kikuchi). Applicants noted that air bubbles were introduced in the cooling passages and that these air bubbles may result in rusting and/or deterioration of the stator coil of the motor and also weaken cooling performance (see the discussion of the Kikuchi device at page 2, lines 9-17 of Applicants' disclosure).

Claim 1 recites, among other features, a discharge portion of said cooling liquid provided in an uppermost portion of said cooling passage, and a supply portion of said cooling liquid provided at least one of on a side different in height from the discharge portion or on a side lower than the discharge portion of said cooling passage. Because the discharge portion recited in the claims is located at an uppermost portion of said cooling passage, a supply portion located at a height different from the discharge portion must necessarily be lower than the uppermost portion. Claim 3 recites that the supply portion is located at the lowermost portion of the cooling passage.

In Kikuchi, the supply portion is located at an uppermost portion of the cooling passage. As such, Kikuchi neither teaches, nor can it reasonably be considered to have suggested, the specific combinations of features recited in the claims.

The Office Action states that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to switch the location of the discharge and supply portions of Kikuchi since it has been held that changing the position of element of an invention is *prima facie* obvious in the absence of new or unexpected results." In support of this conclusion, the Office Action refers Applicants to the precedent stated in *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). However, the reliance on this precedent is misplaced.

In *Japikse*, it was held that simply moving the position of a starting switch on a hydraulic power press would not have modified the operation of the device and therefore the claims that were drawn to only this distinction over the prior art were not unpatentable. MPEP §2144.04, where *Japikse* is referenced concerning Rearrangement of Parts, cites *Japikse* and other precedent for the conclusion that simple rearrangement of parts, which could be considered a matter of design choice, will not render a claimed invention nonobvious. The Patent Office guidance goes on to state "However, 'the mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without benefit of appellant's specification, to make the necessary changes in the reference device.'" (citing *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. and Inter. 1984).

The Office Action asserts that Kikuchi never states that it is vital for the fluid to run from the uppermost portion of the motor to the lowermost portion of the motor. The Office Action then concludes that the positioning of the supply portion on the upper part of the motor and the discharge portion on the lower part of the motor is not vital to the operation of the

apparatus so long as all the coils come in contact with the cooling liquid. However, even if this conclusion is correct, it is not germane to this discussion. The subject matter of the claims results in reduction of air bubbles being introduced into the cooling passage and further results reduction in the potential for rusting and/or deterioration of the stator coil of the motor and weakened cooling performance (see the discussion of the Kikuchi device at page 2, lines 17 of Applicants' disclosure). Thus, Applicants recognize a specific benefit that is not a matter of mere design choice to which the specific structure recited in the claims is directed. These are the "new or unexpected results," and/or the modification in the operation of the device, that were not present in *Japikse*.

The precedent of *Japikse* does not contravene the guidance provided in MPEP §2144.04 regarding the rearrangement of parts, and this guidance must be followed. Kikuchi (the prior art) does not provide a motivational reason for a worker in the art, without benefit of Applicants' specification, to make the necessary change in the reference device. In fact, the flowpath of the coolant liquid in Kikuchi is very meticulously discussed and described in the disclosure of that reference, and no deviation from the disclosed embodiments is even suggested.

The Office Action, on page 6, responds to Applicants arguments previously made that the features upon which Applicants rely are not recited in the rejected claims. The Examiner therefore mixes previous reference to *Japiske* and Applicant's arguments made over that reference now with indication that Applicants are somehow relying in difference in structure not recited in the claims. This argument is misplaced. Applicants recognized new and unexpected results from the claimed structure, a structure different from that disclosed in Kikuchi thereby overcoming the application of *Japiske* to Applicants' arguments. Further, it should be noted that the prior art provides no motivation or reason for the worker in the art, without benefit of Applicants' disclosure to make the necessary change in rearrangement of the flow in the reference device to render obvious the subject matter of the pending claims.

The Office Action "reaffirms the motivation for the rejection included in the previous Office Action while also bringing to light several new references." This reliance is misplaced as well. To the extent that the Examiner relies, for example, on Sekino as allegedly teaching the features recited in the pending claims, it should be noted that the refrigerant of Sekino is heated by the wheel driving motor to "return into a gaseous refrigerant" (See col. 5, lines 18-20). As such, any discharge portion of Sekino cannot reasonably be considered to be a discharge portion of said cooling liquid as recited, among other features, in independent claim 1. Further, while the Office Action references the depictions in, for example, Fig. 20 as allegedly supporting the notion that it was known to flow refrigerant, not necessarily cooling liquid, from a lower portion of the disclosed motor to an upper portion of the disclosed motor, Sekino cannot be considered to be positively enabling regarding such a feature. Specifically, Sekino positively discloses at col. 3, lines 57-61 that "inlets of the refrigerant piping 1 are positioned above the outlets thereof in both the wheel driving motors 8 and the wheel driving motors 10 in order to smooth the flow of the refrigerant so that the wheel driving motors 8 and 10 may be positively and entirely cooled." Positive and entire cooling with inlets of refrigerant piping being positioned above outlets thereof in the wheel driving motors cannot reasonably be considered to suggest that one of ordinary skill in the art would have understood that, despite what may be intimated based on the placement of the arrows in the "sectional side views" of the wheel driving motor shown in Figs. 14-20, that such a flow direction was for any reason, and in any manner, rendered obvious. Simply stated, the internal conflict between the disclosure of Sekino and the depictions renders the allegedly obvious feature at best indefinite and ambiguous, *i.e.*, non-obvious. Reliance on other references enumerated at the top of page 5 of the Office Action is likewise misplaced.

For at least these reasons, Applicants respectfully submit that Kikuchi cannot reasonably be considered to teach, or even to have suggested, the subject matter recited in at least independent claim 1. Additionally, claims 2-7 are also neither taught, nor would they have been

suggested, by Kikuchi for at least the respective dependence of these claims directly or indirectly on independent claim 1, as well as for the separately patentable subject matter that each of these claims recites.

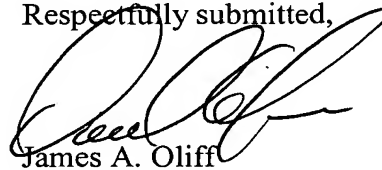
Kimura is relied on by the Office Action only for teaching a motor that has distributed windings. As such, Kimura does not overcome the shortfall in the application of Kikuchi to at least the subject matter of independent claim 1. Claims 8, 9 and 11-14 cannot, therefore, be rendered obvious by the combination of the applied references for at least the respective dependence of these claims directly or indirectly on independent claim 1, as well as for the separately patentable subject matter which each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejections of claims 1, 3-8 and 11-14 under 35 U.S.C. §103(a) as being unpatentable over Kikuchi, or the combination of Kikuchi and Kimura, are respectfully requested.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-8 and 11-14 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Request for Continued Examination

JAO:DAT/gck

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